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(FILE 'HOME' ENTERED AT 14:32:32 ON 12 JUN 2001)

FILE 'STNGUIDE' ENTERED AT 14:33:00 ON 12 JUN 2001

FILE 'REGISTRY' ENTERED AT 14:33:59 ON 12 JUN 2001

L1 SCREEN 1821 OR 1822 OR 1823 OR 1824

L2 STRUCTURE UPLOADED

L3 QUE L2 AND L1 AND L1

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L5 33 S L3 SSS FUL

FILE 'CAPLUS' ENTERED AT 14:34:59 ON 12 JUN 2001

L6 12 S L5

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- L6 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2001 ACS
- AN 2001:75624 CAPLUS
- DN 134:292622
- TI Structure-activity relationships for six ketolide antibiotics
- AU Champney, W. Scott; Tober, Craig L.
- CS Department of Biochemistry and Molecular Biology, J.H. Quillen College of Medicine, East Tennessee State University, Johnson City, TN, 37614, USA
- SO Curr. Microbiol. (2001), 42(3), 203-210 CODEN: CUMIDD; ISSN: 0343-8651
- PB Springer-Verlag New York Inc.
- DT Journal
- LA English
- AB Six structurally related 3-keto-substituted macrolide antibiotics (ketolides) were compared for concn.-dependent inhibitory effects on growth rate, viable cell no., and protein synthesis rates in Staphylococcus aureus cells. Inhibitory effects on 50S ribosomal subunit formation were also examd., as this is a second target for these antibiotics. A concn. range of 0.01 to 0.1 .mu.g/mL was tested. An IC50 for inhibition of translation and 50S synthesis was measured for each compd., to relate structural features to inhibitory activity. ABT-773

was

- the most effective of the six compds. tested with an IC50 = 0.035 .mu.g/mL. HMR 3004 was almost as effective with an IC50 = 0.05 .mu.g/mL. Two 2-fluoroketolides (HMR 3562 and HMR 3787) were equiv. in their inhibitory activity with an IC50 = 0.06 .mu.g/mL. Telithromycin (HMR 3647) had an IC50 = 0.08 .mu.g/mL, and HMR 3832 was least effective with an IC50 = 0.11 .mu.g/mL. Each antibiotic had an equiv. inhibitory effect on translation and 50S subunit formation. These results indicate specific
 - structural features of these antimicrobial agents, which contribute to defined inhibitory activities against susceptible organisms.
- IT 193752-41-9, HMR 3562 334778-44-8, HMR 3787
 RL: BAC (Biological activity or effector, except adverse); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (structure-activity relationships for six ketolide antibiotics)
- RN 193752-41-9 CAPLUS
- CN 2H-Oxacyclotetradecino[4,3-d]oxazole-2,6,8,14(1H,7H,9H)-tetrone,
- 4-ethyl-7-fluorooctahydro-11-methoxy-3a,7,9,11,13,15-hexamethyl-1-[4-[4-(3-pyridinyl)-1H-imidazol-1-yl]butyl]-10-[[3,4,6-trideoxy-3-(dimethylamino)-beta.-D-xylo-hexopyranosyl]oxy]-, (3aS,4R,7S,9R,10R,11R,13R,15R,15aR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN334778-44-8 CAPLUS

CN 2H-Oxacyclotetradecino[4,3-d]oxazole-2,6,8,14(1H,7H,9H)-tetrone, 4-ethyl-7-fluorooctahydro-1-[[4-(3H-imidazo[4,5-b]pyridin-3-

yl)butyl]amino]-11-methoxy-3a,7,9,11,13,15-hexaamethyl-10-[3,4,6-trideoxy-3-(dimethylamino)-.beta.-D-xylo-hexopyranosyl]oxy]-, (3aS, 4R, 7S, 9R, 10R, 11R, 13R, 15R, 15aR) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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- (2) Baquero, F; J Antimicrob Chemother 1997, V39, P1 CAPLUS(5) Bonnefoy, A; J Antimicrob Chemother 1997, V40, P85 CAPLUS
- (6) Brueggemann, A; Antimicrob Agents Chemother 2000, V44, P447 CAPLUS
- (7) Bryskier, A; Expanding indications for the new macrolides, azalides and streptogramins 1997, P39 CAPLUS
- (10) Champney, W; Antimicrob Agents Chemother 1996, V40, P1301 CAPLUS ALL CITATIONS AVAILABLE IN THE RE FORMAT